

Local Hazard Mitigation Plan ANNEX

City of Vacaville

Introduction

The City of Vacaville is a moderately-sized city in Solano County, California. The City has a population of 88,625 people, based on the 2000 census¹. Last year, the City's budget was \$110,114,475. The City employs 582 full time people.

The Planning Process

The process of preparing this plan was familiar to the City of Vacaville. The City has a Safety Element to its General Plan that was last updated in 1999 that includes a discussion of fire, earthquake, flooding, and landslide hazards. In addition, the City routinely enforces the requirements of the California Environmental Quality Act (CEQA) requirements (which, since 1988, have required mitigation for identified natural hazards). The City's effort has focused on building on these pre-existing programs and identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

Many of the activities conducted by the City were fed into the planning process for the multi-jurisdictional plan. The City participated in various ABAG workshops and meetings, including the general "kick-off" meeting. Finally, the City provided information on facilities that are viewed as "critical" to ABAG.

Key City staff met on two occasions to identify and prioritize mitigation strategies appropriate for the City. Departments involved in these meetings included Community Development, City Manager's, Public Works, Housing and Redevelopment, Fire, and Police. At the first meeting, the general priorities and appropriate City departments were identified. At the second meeting, staff identified mitigation strategies. The City will provide the opportunity for the public to comment on the DRAFT mitigation strategies selected by City staff at the City Council meeting on July 18, 2006. The resolution adopting the plan and strategies was on the City Council agenda on August 8, 2006. The mitigation strategies will become an implementation appendix to this Safety Element.

Hazard and Risk Assessment

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). These hazards also impact this community.

While the City has undertaken a number of general hazard mapping activities since the first Safety Element was prepared by the City, all of these maps are less detailed and are not as current as those shown on the ABAG website at <http://quake.abag.ca.gov/mitigation/>.

¹ For complete Census information on this city, see <http://www.bayareacensus.ca.gov/>.

Information on disasters declared in Solano County is at <http://quake.abag.ca.gov/mitigation/disaster-history.html>.

The City examined the hazard exposure of City urban land based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 11,704 urban acres in the City,

- ◆ Earthquake faulting – The Great Valley Fault runs to the east of Vacaville. However, this fault is not considered an active fault with significant surface rupture hazard by the California Geological Survey.
- ◆ Earthquake shaking – No acres are in the highest two categories of shaking potential. However, many acres are in moderate hazard levels due to the presence of this Great Valley Fault.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of Vacaville. However, the hazard is considered similar to that of rainfall-induced landslides.
- ◆ Earthquake liquefaction – 7,411 acres are in areas of moderate, high, or very high liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis mapping within San Francisco Bay has not been completed, there is no significant hazard in the City of Vacaville.
- ◆ Flooding – 555 acres are in the 100-year flood plain, while an additional 1,830 acres are in other flood-prone areas.
- ◆ Landslides – 33 acres are in areas of existing landslides.
- ◆ Wildfires – 477 acres are subject to high, very high, or extreme wildfire threat (because of the urban nature of the City), but 5,011 acres are in wildland-urban interface threat areas.
- ◆ Dam Inundation – 141 acres are subject to dam inundation.
- ◆ Drought – all acres are subject to drought.

The City also examined the hazard exposure of infrastructure based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 313 miles of roadway in the City,

- ◆ Earthquake faulting – Per the ABAG website, no active faults run within the city so rupture of a fault is not a direct concern.
- ◆ Earthquake shaking – No miles of roadway are in the highest two categories of shaking potential. All are in the moderate shaking potential areas.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of Vacaville. No roads are in areas subject to rainfall-induced landslide.
- ◆ Earthquake liquefaction – 211 miles of roadway are in areas of moderate, high, or very high liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis mapping within San Francisco Bay has not been completed, there is no significant hazard in the City of Vacaville.
- ◆ Flooding – 13 miles of roadway are in the 100-year flood plain, while an additional 56 miles are in other flood-prone areas.
- ◆ Landslides – No roads are in areas of existing landslides.

- ◆ Wildfires – While 15 miles of roadway are subject to high, very high, or extreme wildfire threat, 142 miles of roads are in wildland-urban interface threat areas.
- ◆ Dam Inundation – Four miles of roadway is in an area subject to dam inundation.
- ◆ Drought – is not a hazard for roadways.

Finally, the City examined the hazard exposure of critical health care facilities, schools, and city-owned buildings based on the information on ABAG's website at

<http://quake.abag.ca.gov/mitigation/pickcrit.html>. Of the critical facilities in the City,

- ◆ Earthquake faulting – No active faults with a significant surface rupture hazard run within the city so rupture of a fault is not a direct concern.
- ◆ Earthquake shaking – There are no facilities in the highest shaking potential category. However, there are seven city-owned critical facilities, 57 bridges and interchanges moderate shaking categories.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of Vacaville. However, this is unlikely to be an issue because no city-owned facilities or bridges or interchanges are in existing landslide areas.
- ◆ Earthquake liquefaction susceptibility – Six critical city-owned facilities are in areas of moderate liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis mapping within San Francisco Bay has not been completed, there is no significant hazard in the City of Vacaville.
- ◆ Flooding – There are no city-owned critical facilities in a flood hazard area.
- ◆ Landslides – There are no critical facilities in areas of “many” or “mostly” landslide.
- ◆ Wildfires – There are no city-owned critical facilities subject to high, very high, or extreme wildfire threat, while there are three city-owned critical facilities are in wildland-urban interface threat areas.
- ◆ Dam Inundation – No city-owned critical facilities are in an area subject to dam inundation.
- ◆ Drought – Drought will not affect city buildings directly. However, the city does operate a water-supply distribution system.

In spite of the areas of the City located in flood-prone areas, there are no repetitive loss properties in the City based on the information at <http://quake.abag.ca.gov/mitigation/pickflood.html>.

The City plans to work with ABAG during 2006 to improve the risk assessment information being compiled by ABAG by providing information on unreinforced masonry buildings and soft-story apartments located in the City.

Drought, though a potential problem in the City, is not fully assessed. The City will work with ABAG and various water supply agencies on this issue.

The City plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted. The ABAG Annex states that ABAG will be doing this work in 2005 through early 2006.

As these impacts are not fully developed, the City has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that flooding, wildfire, and landslides (including unstable earth) pose a significant risk for potential loss, while earthquakes (including shaking and liquefaction) are less of a problem but still of concern.

Mitigation Activities and Priorities

As a participant in the ABAG multi-jurisdictional planning process, City of Vacaville staff helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. The list was discussed at a meeting of City staff members representing the following Departments; Community Development, Public Works, Fire Department, and Assistant City Managers met on March 2, 2006. At the meeting, all of the mitigation strategies were reviewed. The tentative decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage.

Over time, we are committed to developing better hazard and risk information to use in making those trade-offs. We are not trying to create a disaster-proof region, but a disaster-resistant one. In addition, several of the strategies are existing City programs.

These draft priorities were submitted to the City Manager for review. The draft priorities were then provided to the City Council on July 18, 2006. The resolution adopting the plan and strategies was on the City Council agenda on August 8, 2006. The final strategies (as shown in the attached Table) will become an *Implementation Appendix* to the City's *Safety Element*.

In the recent storms of late December and early January 2006, the City again experienced flooding due to lack of adequate detention basins. Therefore, the construction of these basins and related mitigation activities are listed as a "high" priority in the attached strategies.

The Plan Maintenance and Update Process

The Fire Chief will ensure that *monitoring* of this Annex will occur. The plan will be monitored on an on-going basis. However, the major disasters affecting our community, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used. Finally, the Annex will be a discussion item on the agenda of the meeting of City department heads at least once a year in April. At that meeting, the department heads will focus on *evaluating* the Annex in light of technological and political changes during the past year or other significant events. This group will be responsible for determining if the plan should be updated.

The City of Vacaville is committed to reviewing and *updating* this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The City Community Development Director will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the City again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of

Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The *public* will continue to be involved whenever the plan is updated and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, the City will provide the opportunity for the public to comment on the updates. A public notice will be posted prior to the meeting to announce the comment period and meeting logistics.